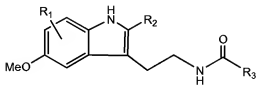
AMENDMENTS TO THE CLAIMS

Claims 1-36 (Cancelled).

37. (Currently Amended) A compound of the formula



wherein

R_1 is hydrogen, ~~halo~~ a halogen or nitro,

R_2 is C_4-C_{20} aryl, and

R_3 is C_1–C_{30} alkyl, C_2–C_{22} alkenyl, C_4-C_{20} aryl, OR_4, SR_4, NR_4R_5, $(CH_2)_nOR_4$, $(CH_2)_nSR_4$, $(CH_2)_nNR_4R$ or $(CH_2)_nCOR_5$

wherein

n is 0-10; and

R_4 and R_5, which can be the same or different, are hydrogen, C_1-C_8 alkyl, C_1-C_6 alkenyl or C_4-C_{10} aryl.

38. (Previously Presented) The compound of claim 37, wherein R_3 is C_1-C_6 alkyl or C_1-C_6 alkoxy.

39. (Previously Presented) The compound of claim 37, wherein R_1 is hydrogen, R_2 is C_4-C_{20} aryl, and R_3 is methyl.

40. (Previously Presented) The compound of claim 37, wherein R_1 is hydrogen, R_2 is C_4-C_{20} aryl, and R_3 is ethyl.

41. (Previously Presented) The compound of claim 37, wherein R_1 is hydrogen, R_2 is C_4-C_{20} aryl, and R_3 is cyclopropyl.

42. (Previously Presented) The compound of claim 37, wherein R_1 is hydrogen, R_2 is C_4-C_{20} aryl, and R_3 is cyclobutyl.

43. (Previously Presented) The compound of claim 37, wherein R_1 is hydrogen, R_2 is C_4-C_{20} aryl, and R_3 is methoxy.

44. (Previously Presented) The compound of claim 37, wherein R_1 is hydrogen, R_2 is C_4-C_{20} aryl, and R_3 is ethoxy.

45. (Previously Presented) The compound of claim 37, wherein R_1 is hydrogen, R_2 is C_4-C_{20} aryl, and R_3 is amino.

46. (Previously Presented) The compound of claim 37, wherein R_1 is hydrogen, R_2 is C_4-C_{20} aryl, and R_3 is dimethylamino.

47. (Previously Presented) The compound of any of claims 38-46, wherein R2 is selected from the group consisting of phenyl, 4-(fluorophenyl), 3-(fluorophenyl), 2-(fluorophenyl), 4-(chlorophenyl), 3-(chlorophenyl), 2-(chlorophenyl), 4-(methylphenyl), 3-(methylphenyl), 2-(methylphenyl), 4-(methoxyphenyl), 3-(methoxyphenyl), 2-(methoxyphenyl), 4-(ethoxyphenyl), 3-(ethoxyphenyl), 2-(ethoxyphenyl), 4-(vinylphenyl), 4-(acetylphenyl), 3-(acetylphenyl), 2-(acetylphenyl), 4-(trifluoromethylphenyl), 3-(trifluoromethylphenyl), 4-(trimethylsilylphenyl), 3-(trimethylsilylphenyl), 4-(methylthiophenyl), 4-(*tert*-butylphenyl), 4-(dimethylaminophenyl), 4-(ethylphenyl), 4-(benzoxyphenyl), 4-(biphenyl), 2-furanyl, 2-(thiophenyl), 2-(5-methylthiophenyl), 3-(thiophenyl), 2-(indolyl), 1-(naphthalenyl), 2-(naphthalenyl), 4-(dibenzofuranyl), 1-(thianthrenyl), 2,3-(dichlorophenyl), 2,5-(dichlorophenyl), 3,4-(dichlorophenyl), 3,5-(dichlorophenyl), 2,3-(difluorophenyl), 2,4-(difluorophenyl), 2,5-(difluorophenyl), 2,6-(difluorophenyl), 3,4-(difluorophenyl), 3,5-(difluorophenyl), 3,5-(dibromophenyl), 3,5-(bis(trifluoromethyl)phenyl), 2,3-(dimethylphenyl), 2,5-(dimethylphenyl), 2,6-(dimethylphenyl), 3,5-(dimethylphenyl), 2,4-(dimethoxyphenyl), 2,5-(dimethoxyphenyl), 3,4-(dimethoxyphenyl), 2,3,4-(trimethoxyphenyl), 2,4,6-(trifluorophenyl), and 2,3,4,5,6-(pentaflurophenyl).

48. (Previously Presented) The compound of claim 37, wherein the compound is N-(2-(2-(4-fluorophenyl)-5-methoxy-1H-indol-3-yl)ethyl)acetamide.

49. (Previously Presented) The compound of claim 37, wherein the compound is N-(2-(5-methoxy-2-methoxyphenyl-1H-indol-3-yl)ethyl)acetamide.

50. (Previously Presented) The compound of claim 37, wherein the compound is N-(2-(5-methoxy-2-p-tolyl-1H-indol-3-yl)ethyl)acetamide.

51. (Previously Presented) The compound of claim 37, wherein the compound is N-(2-(2-(4-tert-butylphenyl)-5-methoxy-1H-indol-3-yl)ethyl)acetamide.

52. (Previously Presented) The compound of claim 37, wherein the compound is N-(2-(2-(3-trifluoromethylphenyl)-5-methoxy-1H-indol-3-yl)ethyl)acetamide.

53. (Previously Presented) The compound of claim 37, wherein the compound is N-(2-(2-(4-trifluoromethylphenyl)-5-methoxy-1H-indol-3-yl)ethyl)acetamide.

54. (Currently Amended) A method for preparing the compound of claim 37, ~~which method comprises~~ comprising reacting a 2-halo melatonin with aryl boronic acid in the presence of palladium catalyst.

55. (Currently Amended) A method for preparing the compound of claim 38, ~~which method comprises~~ comprising reacting a 2-halo melatonin with aryl boronic acid in the presence of palladium catalyst.

56. (Previously Presented) A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 37 and a pharmaceutically acceptable carrier or diluent.

57. (Previously Presented) A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 38 and a pharmaceutically acceptable carrier or diluent.

58. (Previously Presented) The pharmaceutical composition of claim 57, wherein the pharmaceutical composition comprises nanoparticles of the compound of claim 37.

59. (Previously Presented) The pharmaceutical composition of claim 58, wherein the pharmaceutical composition comprises nanoparticles of the compound of claim 38.

60. (Previously Presented) The pharmaceutical composition of claim 57, wherein the pharmaceutical composition comprises an anesthetic inducing effective amount of the compound of claim 37 and a pharmaceutically acceptable anesthetic carrier.

61. (Previously Presented) The pharmaceutical composition of claim 58, wherein the pharmaceutical composition comprises an anesthetic inducing effective amount of the compound of claim 38 and a pharmaceutically acceptable anesthetic carrier.

62. (Currently Amended) A method of inducing sedation, hypnosis and/or sleep, or general anesthesia in a patient, ~~which method comprises~~ comprising administering to the patient a therapeutically effective amount of the pharmaceutical composition of claim 57.

63. (Currently Amended) A method of inducing sedation, hypnosis and/or sleep, or general anesthesia in a patient, ~~which method comprises~~ comprising administering to the patient a therapeutically effective amount of the pharmaceutical composition of claim 58.

64. (Currently Amended) The method of claim 63, wherein said administering step is completed by a method selected from the group consisting of oral administration, nasal respiratory administration, bolus injection, intravenous administration, continuing infusion, rectal administration, vaginal administration, sublingual administration, and cutaneous administration.

65. (Currently Amended) The method of claim 64, wherein said administering step is completed by a method selected from the group consisting of oral administration, nasal respiratory administration, bolus injection, intravenous administration, continuing infusion, rectal administration, vaginal administration, sublingual administration, and cutaneous administration.

66. (Currently Amended) A method for treating sleep disorders or chronobiological disorders in a patient, ~~which method comprises~~ comprising administering to the patient a therapeutically effective amount of the pharmaceutical composition of claim 57.

67. (Currently Amended) A method for treating sleep disorders or chronobiological disorders in a patient, ~~which method comprises~~ comprising administering to the patient a therapeutically effective amount of the pharmaceutical composition of claim 58.

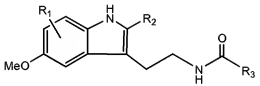
68. (Currently Amended) A method for treating a condition affected by melatonin activity in a patient, ~~which method comprises~~ comprising administering to the patient a therapeutically effective amount of the pharmaceutical composition of claim 57.

69. (Currently Amended) A method for treating a condition affected by melatonin activity in a patient, ~~which method comprises~~ comprising administering to the patient a therapeutically effective amount of the pharmaceutical composition of claim 58.

70. (Previously Presented) The method of claim 69, wherein the condition affected by melatonin activity is selected from the group consisting of depression, epilepsy, jet-lag, work-shift syndrome, sleep disorders, glaucoma, reproduction, cancer, premenstrual syndrome, immune disorders, inflammatory articular diseases, neurodegenerative diseases of the central nervous system, and neuroendocrine disorders.

71. (Previously Presented) The method of claim 70, wherein the condition affected by melatonin activity is selected from the group consisting of depression, epilepsy, jet-lag, work-shift syndrome, sleep disorders, glaucoma, reproduction, cancer, premenstrual syndrome, immune disorders, inflammatory articular diseases, neurodegenerative diseases of the central nervous system, and neuroendocrine disorders.

72. (Currently Amended) A compound of the formula



wherein

R_1 is hydrogen or ~~halo~~ a halogen,

R_2 is C_4-C_{20} aryl, and

R_3 is C_1–C_{30} alkyl, C_2–C_{22} alkenyl, C_4-C_{20} aryl, OR_4, SR_4, NR_4R_5, $(CH_2)_nOR_4$, $(CH_2)_nSR_4$, $(CH_2)_nNR_4R$ or $(CH_2)_nCOR_5$

wherein

n is 0-10; and

R_4 and R_5, which can be the same or different, are hydrogen, C_1-C_8 alkyl, C_1-C_6 alkenyl or C_4-C_{10} aryl.

This listing of claims replaces all prior versions and listings of claims in the application.